

145.2

REPORT ON  
SOUTHERN CALIFORNIA RAPID  
TRANSIT DISTRICT

ASSEMBLYMEN

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Joint Legislative Audit Committee

GOVERNMENT CODE: SECTIONS 10500-10504

California Legislature

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February 13, 1973

Senator Lawrence E. Walsh, Chairman  
Senate Transportation Committee  
Room 5061, State Capitol  
Sacramento, California 95814

Dear Larry:

Transmitted herewith is the report requested by the Senate Transportation Committee concerning the transit bus operations and rapid transit planning of the Southern California Rapid Transit District.

Contrary to the nationwide decline in both the number of passengers and miles of operation, the district has expanded service and increased the number of passengers since its first year of operation, 1965. All operating costs were paid from revenues until 1969, but since then the annual loss has been increasing each year. For the first six months of 1972, operating costs were 58 percent greater than passenger revenues, with the operating deficit accumulating at the rate of \$2 million per month. The principal causes of the increasing deficits are:

- The absence of any significant change in fares since 1967 to offset for the increases in the cost of operations
- Service expansions (miles of bus operations) have been four times greater than the increase in number of passengers
- Increases in wage and retirement benefits since subsidy funds were first provided by the Legislature have been over twice the amounts of prior increases.

Senator Lawrence E. Walsh, Chairman

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The absence of local concurrence with the December 1971 district announcement to proceed first with construction of the so-called central line prompted the current consultant study which has the following objectives:

- Establish line priority
- Determine modal (rail or exclusive busway) advantages
- Prepare a federal capital grant application for funds authorized by the 1970 Urban Mass Transportation Assistance Act.

Several proposals before Congress would either eliminate or reduce the present modal restrictions on federal transportation appropriations. Rather than continuing to make separate congressional appropriations for roads and transit, local communities would be authorized to allocate their share of federal funds between roads and transit. Congress could implement a change in the method of allocation before federal administrative allocation of funds to Los Angeles under the 1970 act. This could result in the end product of the current study, a grant application under the 1970 act, being useless. However, the following improvements in the current study over the last major study completed in 1968, would facilitate local decisions regarding the allocations of funds between roads and transit.

- Environmental impact is a major consideration.
- Accurate projections of the future allocations of total travel between roads and transit under various assumed operating conditions can be made.

Both the receipts and expenditures of the district from the beginning of operations, January 1, 1965, to June 30, 1972 were in excess of \$400 million. Approximately 85 percent of revenue was provided from passenger revenues, while the same percentage of disbursement was for operations.

The records of the district have been audited by an independent accounting firm from inception, January 1, 1965, through June 30, 1972. The Auditor General's review was limited to (1) identifying the major factors controlling operating results and (2) analyzing current rapid transit planning.

Sincerely



VINCENT THOMAS, Chairman  
Joint Legislative Audit Committee

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## SUMMARY OF FINDINGS

### OPERATIONAL DEFICIT OF \$2 MILLION PER MONTH

The Southern California Rapid Transit District has incurred increasing deficits from its operations each year since 1969. For the first six months of 1972, operating costs were 58 percent greater than passenger revenues with the deficit accumulating at the rate of \$2 million per month. Following are the major causes.

- Between 1965, the first year of operations, and 1971, the district's increase in revenue was only 60 percent of revenue increases of the transit industry nationwide.
- During the same period, the district's increase in costs were 13 percent above the industry increase. Prior to 1971, the district's costs were increasing at a rate similar to the industry, but in that year the district's increase was 50 percent above the industry.
- Contrary to the national trend of significant decreases in both numbers of passengers and services provided, both the number of passengers carried and the miles of bus operations provided by the district have increased. The miles of operation have increased four times greater than the passenger increase.

- During its first year of operations, 1965, the district's average bus fare was 50 percent above the national average bus fare. By 1971, this difference had almost been eliminated because the district's average fare had increased only one-sixth of the national average increase.
- Almost one-half of the increased miles of bus operation resulted from the acquisition of bus lines and continuation of services which had been provided by others. The available information indicates that the costs of operating these lines average almost twice the revenue realized, while the costs of other lines exceed revenue by an average of only 42 percent.
- Labor is the largest element of district operating costs. Average annual wage and salary increases since deficit operations began in 1969 have been more than twice the amount of such increases prior to 1969.
- The district's retirement plan contributions in 1971 were almost seven times greater than 1965 retirement costs. Increased retirement benefits require higher current contributions to finance the increased benefits related to both current earnings and prior service credits.

TRANSIT PLANNING AND ROAD  
PLANNING ARE CONDUCTED SEPARATELY

This separation creates a presumption that major development of one mode will have little or no effect on the other. In addition, both road and transit planning have been less sensitive to the possibility of significant

changes in behavior patterns in the individual mode selections made by trip makers.

The objectives of the current SCRTD study are to determine corridor priority and modal (fixed-rail or exclusive busway) advantages, with the final product being a federal capital grant application. Most of the work of this eight-month study is being performed by five consultants. It is being financed by a federal grant to the Southern California Council of Governments (SCAG) with local matching funds provided from the unexpended balance of state funds held by Southern California Rapid Transit District which were appropriated for the prior transit study completed in 1968.

Because the major portion of construction funds will be federal funds authorized by the 1970 Urban Mass Transportation Act, federal concurrence in the plan is a condition precedent to development. Various proposals before Congress would eliminate or reduce the significance of modal restrictions on federal transportation subventions. Enactment of any of these proposals would enable a significantly larger amount of the decisional authority regarding allocation of funds to mode to be exercised locally.

Recent improvements by SCAG in its multimodal planning method, which will provide more accurate projections of future allocations of total travel among alternative modes, are to be utilized in the current SCRTD study. This improved objectivity together with the separate considerations of environmental impact are the major improvements over prior planning practices.

The timing of the necessary local and federal concurrences in the planning process cannot be accurately projected, so that if and when actual construction will start is conjecture at this time.



DISTRICT HAS RECEIVED AND SPENT  
MORE THAN \$400 MILLION SINCE 1965

Both the receipts and expenditures of the district between January 1, 1965, when the district began operations, and June 30, 1972 were in excess of \$400 million. Approximately 85 percent of receipts were provided from passenger revenues. Other receipts were provided from the temporary one-half cent sales tax increase levied from July to December 31, 1970, federal-aid, state planning funds and local government subsidy.

Approximately 85 percent of expenditures were for operations. Debt service, capital outlay and rapid transit planning were the other 15 percent.

Disbursements exceeded receipts by approximately \$5 million.

## INTRODUCTION

The Southern California Rapid Transit District (SCRTD) was created by statute in 1964 to continue the mass transit operations of the Los Angeles Metropolitan Transit Authority and to provide a rapid transit system. The district is administered by an eleven-member board of directors who are appointed by and serve at the pleasure of the following:

- Five, by the Board of Supervisors of the County of Los Angeles
- Two, by the Mayor of the City of Los Angeles, subject to confirmation by the City Council of the City of Los Angeles
- Four, by the city selection committee, each of whom shall be a resident of a different city and none of whom shall be residents of the City of Los Angeles.

The term of board members who are not members of the Board of Supervisors of the County of Los Angeles, or members of the City Council of the City of Los Angeles or members of the city selection committee are staggered terms of four years. If a board member is a member of the Board of Supervisors of the County of Los Angeles or the City Council of the City of Los Angeles and his term of office as a member of such bodies terminates, a vacancy is automatically created in his office as member of the board of directors. Each member of the city selection committee serves at the pleasure of the governing body of the city by which he was appointed. If his term of office as a member of such appointing body terminates, a vacancy is automatically created in his office as a member of the city

selection committee and also as a member of the board of directors, if he is so serving.

The duties and responsibilities of the board are:

- Determine all questions of district policy and act as the legislative body of the district
- Contract and take any and all actions to carry out the purposes specified in the creating statute
- Determine what transit facilities should be acquired or constructed
- Supervise and regulate every transit facility owned and operated by the district
- Adopt a personnel system and establish salaries, health and fringe benefits
- Contract for professional services
- Have an annual independent audit
- Submit annual financial statements
- Authorize the payment of demands against the district
- Provide for the creation and administration of funds and establish rules for the payment of funds
- Hold public hearings, subpoena witnesses and delegate authority to officers of the district
- Administer oaths and affirmations.

## OPERATIONS

From its creation in 1964 through 1968, the Southern California Rapid Transit District realized sufficient passenger revenues to pay all operating costs. Since 1969, the amount of loss has been increasing substantially each year. For the first six months of 1972, costs exceeded passenger revenues by 58 percent.

Until 1971, the district's costs were increasing at about the same rate as that of the transit industry. In 1971, the district's cost increase was 50 percent above that of the industry - a 12 percent increase as compared to an eight percent increase for that one year.

In the last six years, the number of bus transit passengers in this country has been reduced by 19 percent, while the district has had a two percent increase in the number of passengers. Nationally, bus transit fares have increased 59 percent since 1965, while the district's fares have increased only ten percent. The following tabulation relates the effects of the two changes, fares and number of passengers on revenues.

	Percentage Increase (Decrease)		
	From 1965 to 1971		
	<u>Passengers</u>	<u>Fares</u>	<u>Revenue</u>
Bus Industry	(19%)	59%	26%
Southern California Rapid Transit District	2%	10%	12%

## REVENUES AND EXPENSES

SCRTD revenue increases have not kept pace with the transit industry growth. Between 1965 and 1969 the increase in SCRTD revenue was above the industry. However, in both 1970 and 1971 the industry reported significant increases, while SCRTD revenues were decreasing. For the entire period, 1965 through 1971, the industry reported revenue increases 73 percent above the SCRTD increase.

The following tabulation relates the changes in revenue for the district and the transit industry in this country, as reported by the American Transit Association. To facilitate comparison, dollar amounts have been converted to percentages, with the first year of the district's operations, 1965, used as the base year.

<u>Year</u>	Revenue (As a % of 1965)	
	<u>District</u>	<u>Industry</u>
1965	100%	100%
1966	102	102
1967	109	108
1968	115	108
1969	116	113
1970	113	118
1971	112	120

The following tabulation reflects the changes in expenses on the same basis as revenues above.

<u>Year</u>	Expenses (As a % of 1965)	
	<u>District</u>	<u>Industry</u>
1965	100%	100%
1966	103	104
1967	110	111
1968	117	118
1969	126	127
1970	137	137
1971	154	148

From its inception through 1970, the district's changes in level of expenditure was close to the industry changes. In 1971, the district's expenditure increased 12 percent compared to an eight percent increase for the industry.

#### LEVEL OF SERVICE PROVIDED

The overall level of service provided to the community by its transit system is determined by frequency of service, distances to stations and stops, age and degree of comfort provided by equipment, reasonableness of fares, and convenience of routes. Changes in the total miles of annual bus operations are an indication of whether or not the frequency and the size of the service area are increasing.

The following tabulation shows the changes in the annual total bus miles of revenue operations for the district and for the bus transit industry in this country, as reported by the American Transit Association. To facilitate comparison, numbers of miles have been converted to percentages, with the first year of the district's operations, 1965, used as the base year.

<u>Year</u>	<u>Number of Miles (As a % of 1965)</u>	
	<u>District</u>	<u>Industry</u>
1965	100%	100%
1966	99	100
1967	101	100
1968	104	99
1969	105	97
1970	106	92
1971	108	90

During the period the level of service provided by the district in terms of frequency and service area increased eight percent, while nationally there was a ten percent reduction in services.

## NUMBER OF PASSENGERS

The degree to which the transit system services the community is most obvious from usage. Changes in the total number of passengers evidences improvement or the lack thereof. Since 1965, the bus transit industry has continued to report steady decreases in annual usage. This trend began at the conclusion of World War II. SCRTD has realized a small, but significant increase in the annual number of passengers carried.

The following tabulation reflects the changes in the total number of annual bus passengers for the district and the bus transit industry in this country, as reported by the American Transit Association. To facilitate comparison, numbers have been converted to percentages with the first year of the district's operations, 1965, used as the base year.

<u>Year</u>	<u>Number of Passengers</u> <u>(As a % of 1965)</u>	
	<u>District</u>	<u>Industry</u>
1965	100%	100%
1966	101	99
1967	99	98
1968	100	97
1969	103	92
1970	103	87
1971	102	81

## FARES

The district has a number of fare plans. As described in a subsequent section, the transit industry, including SCRTD, has insufficient detailed operational information. Neither the amount of fare paid by each passenger nor the extent of usage of each fare plan is known. Periodic studies are conducted to estimate this information. The following information is from the last study, conducted in 1969.

<u>Type of Fare</u>	<u>Number of Monthly Passengers</u>	<u>Percentage</u>
Adult Cash and Token	276,225	55.37%
Senior Citizen Cash	5,909	1.18
Monthly Pass	73,057	14.65
Senior Citizen Pass	5,791	1.16
Commuter Ticket	4,207	.85
Adult One-Way Tickets	8,133	1.63
Shoppers Special	626	.12
Foreign Line Interchange	161	.03
Free Pass	1,829	.37
School Pass	39,735	7.97
School Tickets	4,340	.87
Child Interline	<u>100</u>	<u>.02</u>
Revenue Passengers	420,113	84.22%
Transfers Received	<u>78,714</u>	<u>15.78</u>
Total Passengers	<u>498,827</u>	<u>100.00%</u>

In 1967, the district's basic fare was increased from 25 cents to 30 cents, a charge of five cents for transfers was added, and monthly passes were instituted. Regular monthly passes cost \$12 and senior citizen passes cost \$9. There have been no other significant changes in fares in the five years since 1967.

The following tabulation reflects the changes in the average fare per revenue passenger (a passenger transferring is counted as one revenue passenger and also as two passengers in counting total passengers carried) for the district and the bus transit industry in this country, as reported by the American Transit Association.



<u>Year</u>	<u>Average Fare</u>	
	<u>District</u>	<u>Industry</u>
1965	\$.3107	\$.2055
1966	.3128	.2123
1967	.3442	.2339
1968	.3588	.2320
1969	.3495	.2571
1970	.3405	.2941
1971	.3405	.3285

In 1965, the district's fare was approximately 50 percent above the national average. By 1971, the difference had almost been eliminated. In the following tabulation, the above amounts have been converted to percentages, with the first year of the district's operations, 1965, used as the base year.

<u>Year</u>	<u>Average Fare (As a % of 1965)</u>	
	<u>District</u>	<u>Industry</u>
1965	100%	100%
1966	101	103
1967	111	109
1968	116	113
1969	113	125
1970	110	143
1971	110	159

#### RIDING PATTERN

The last major study of riding patterns was conducted in 1969 by a consultant to the district. Although the district serves an area of over 2,000 square miles, the study revealed that the majority of usage occurred in the area surrounding the primary central business district. Even on suburban and interurban lines, the majority of uses were within well defined local areas with little or no use for suburban or interurban trips.

The district is divided into 30 fare zones with zone one including and extending beyond the central business district. Higher zone numbers reflect the greater distances from zone one. Following is the percentage distribution of usage by zones.

<u>Location of Use</u>	<u>Percentage</u>
Within zones one through five	93%
To and from zone one from zone six and above	2%
All other usage	5%

#### OPERATING INFORMATION

A common problem of the transit industry is the lack of detail information regarding operations. The revenue per unit of service for other forms of transportation (air, rail, intercity bus, water) are substantially larger than for bus transit. As a consequence, the information necessary to determine the operating results of each line (e.g. flights between Los Angeles and San Francisco) and each run (e.g. a particular flight between Los Angeles and San Francisco) is routinely provided by management information and accounting systems.

For SCRTD much of the information concerning operations is obtained from periodic studies which include assumptions and arbitrary allocations in data development. Thus, the number of passengers is derived from revenue receipts which necessitates (1) assumptions regarding the number of monthly passes used, senior citizen fare permits, school fare identification cards, and shoppers passes, and (2) arbitrary allocations of fare box receipts among regular fares, various reduced fares, zone fares and transfers.

## EXPANSION OF SERVICES

According to the American Transit Association, the total number of miles of transit bus operations in this country during 1971 was ten percent below the miles of operations in 1965, the first year of SCRTD operations. During this same period, SCRTD increased its annual miles of operations by eight percent.

Following is a summary of the reasons for and the number of lines affected by service additions between January 1, 1965 and October 1, 1972.

<u>Reason</u>	<u>Number of Lines Affected</u>
New lines	24
Acquisitions from other operators	28
Extensions of existing lines	28
Increased frequency of service	4
Increased frequency enabled by the 1972 federal Emergency Employment Act	16
Opening of new central station	<u>9</u>
Total	<u>109</u>

Following is a projection of the annual increased mileage for services added through October 1, 1972.

<u>Reason</u>	<u>Annual Mileage Increase</u>	<u>Percentage of Total</u>
New lines	2,600,801	32%
Acquisitions from other operators	3,961,111	48
Extensions of existing lines	937,351	11
Increased frequency of service	207,913	3
Increased frequency enabled by the 1972 federal Emergency Employment Act	417,435	5
Opening of new central station	<u>58,924</u>	<u>1</u>
Total	<u>8,183,535</u>	<u>100%</u>

As indicated above, almost one-half of the increased miles of operations resulted from the acquisition of services which had been provided by other operators.

Following is a summary of the district's service acquisitions from others.

<u>Year Acquired</u>	<u>Former Operator</u>	<u>Annual Miles Of Operations</u>
1967	Pasadena City	1,224,394
1967	Inglewood City	559,747
1971	San Pedro	256,708
1971	Eastern Cities	428,901
1971	Blue and White	954,239
1972	Pomona City	<u>537,122</u>
Total		<u>3,961,111</u>

The expansion of services by assuming the operations of others has been one of the causes of increasing deficit.

- The highest level of transit usage occurs during the Monday-through-Friday commute hours. Ninety percent of the district's expanded service on its original lines is on weekdays as compared with 84 percent of the acquired service.

- An analysis of line-operating results conducted by the district in May 1972, revealed that the loss on the acquired lines was substantially larger than on other lines. For the acquired service, the loss was equal to 98 percent of line revenue, while the average loss for all other lines was 42 percent of revenue.

#### SALARIES AND WAGES

Labor costing \$42 million in 1971 is the largest element of the district's operating costs. Salaries and wages are distributed to the various expenditure accounts specified by the Interstate Commerce Commission. The largest expenditure item is transportation, with approximately 95 percent of these costs being wages. The balance is fuel and oil. The second largest expenditure item is maintenance, with employee wages comprising approximately 75 percent of these costs. The balance is repair parts and outside contract repair costs. Approximately 80 percent of the district's labor costs are charged to the two major expenditure items, transportation and repairs.

Following is a comparison of the number of employees at the time the district began operations and as of July 1, 1972.

<u>Employee Group</u>	<u>Number of Employees</u>		
	<u>January 1 1965</u>	<u>July 1 1972</u>	<u>Increase (Decrease)</u>
Operators	2,496	2,676	180
Mechanics	691	685	(6)
Clerical	274	288	14
Supervision and Adminis- tration	<u>438</u>	<u>464</u>	<u>26</u>
Total	<u>3,899</u>	<u>4,113</u>	<u>214</u>

During this period, the number of drivers increased by three percent while the number of miles of bus operation increased by eight percent. The number of supervisory and administrative personnel increased by six percent.

The following tabulation compares the average wage increases during the first year of the district's operations, 1965, with the average increases during the first nine months of 1972.

<u>Labor Class and Period</u>	<u>Average Increase</u>	<u>Percent Increase Over Prior Year</u>
Operators		
1965	6¢ per hour	2.1 %
1972 (9 months)	47¢ per hour	11.1 %
Mechanics		
1965	7¢ per hour	2.1 %
1972 (9 months)	35¢ per hour	6.7 %
Clerical		
1965	\$11 per month	2.2 %
1972 (9 months)	\$70 per month	9.2 %
Supervision and Administration		
1965	\$40 per month	5.2 %
1972 (9 months)	\$60 per month	5.6 %

Passenger revenues were in excess of total operating costs through 1968, but since 1969, the excess of costs over revenue have been met from state authorized subsidy funds. The following tabulation compares the average annual wage increases during the period revenues exceeded costs (1965-1968) with the period which costs have exceeded revenues (1969 to September 1972).

<u>Labor Class and Period</u>	<u>Average Annual Wage Increase</u>	<u>Percent Increase</u>
Operators		
1965-1968	.1275¢ per hour	
1969-Sept. 1972	.3425¢ per hour	169%
Maintenance		
1965-1968	.165¢ per hour	
1969-Sept. 1972	.405¢ per hour	145%
Clerical		
1965-1968	\$22.50 per month	
1969-Sept. 1972	\$58.75 per month	161%
Supervision and Administration		
1965-1968	\$35.25 per month	
1969-Sept. 1972	\$57.75 per month	64%

The first three classes, operators, maintenance and clerical personnel, are represented by unions while the last class is not. The latter period's average annual percentage of increases over the prior period for the first three classes are almost two and one-half times greater than the nonunion class.

#### RETIREMENT COSTS

The district makes contributions under four separate retirement plans, one for each of the three unions and one for nonunion administrative and management employees. Separate funds are maintained for each plan. The Bank of America is trustee for all four funds. As of July 31, 1972, the combined assets of the four funds exceeded \$19 million. No audits of these funds have been made.

The cost of SCRTD employee retirement plans have increased more than any other item of district cost. The estimated annual cost for 1972 of \$5.7 million is almost seven times the 1965 cost.

As of June 30, 1972, the expected payment of benefits in the future exceed the funds in trust by approximately \$30 million for the combined plans. At December 31, 1965, the deficit was approximately \$323,600. The SCRTD contributions are determined by actuarial studies made by an independent firm. They provide for benefits related to current services and for prior services. The contributions are currently based on the following percentages of employees' wages.

	<u>Normal Contribution</u>	<u>Prior Service Contribution</u>	<u>Total SCRTD Contribution</u>
Bus operators (union)	7.67%	4.97%	12.64%
Maintenance employees (union)	7.76	6.79	14.55
Clerical employees (union)	8.07	4.92	12.99
Administrative employees (nonunion)	7.21	15.31	22.52

Administrative employees also contribute 1-1/4 percent of their wages which is for additional benefits.

Each retirement fund is controlled by an investment board. SCRTD has the same three members on all boards and each union has two members. All four boards took action at their meeting on November 16, 1972, to limit the commissions that can be paid to any single broker. The following events brought about this action.

- Prior to April 1, 1972, each investment board controlled its investments. The desire to improve earnings prompted the boards to obtain professional management.
- Two financial management firms have responsibility for one-half of the total investments.



- Since April 1, 1972, over 50 percent of the transactions of one of the financial management firms was placed with a brokerage firm with which one of the members of the SCRTD board of directors was associated.

#### OTHER EXPENSES

Since 1965, the district's expenses increased 54 percent while the transit industry increased 48 percent.

The following changes in operations and method of accounting have caused expenses to increase.

- The district's insurance program includes partial self-insurance for both workmen's compensation and public liability claims. The method of accounting was changed in 1969 to more accurately reflect the estimated liabilities. The expenses for that year increased by \$945,00 as a result of the change.
- In 1968, the prior rapid transit planning costs provided from operations which had been capitalized and were included in the assets in the amount of \$1,747,000 were written off and included in the expenses of that year.

## PLANNING

### PRIOR STUDIES

State involvement in Los Angeles rapid transit development began in 1951 when the Los Angeles Metropolitan Transit Authority (LAMTA) was created by legislation for the purpose of studying the feasibility of a monorail system running from the San Fernando Valley through Los Angeles to Long Beach. This proposed facility was determined to be unrealistic. Legislation in 1957 required LAMTA to develop a mass transit system and authorized the authority to purchase the properties and franchises of the principal transit bus operators, Los Angeles Transit Lines and Metropolitan Coach Lines.

By 1964 it had "...become apparent that the authority is unable to solve the transit problems of the Southern California area and provide the needed mass rapid transit system..." (Quotation from Section 30001 of the Public Utilities Code establishing "SCRTD".) The new district financed exclusively from passenger revenues did not have sufficient funds to complete the required planning and preliminary engineering. Two years after its creation, SCRTD was provided planning and development funds by Senate Bill 2, First Extraordinary Session of 1966. An augmentation, a technical study grant under the 1964 federal Urban Mass Transportation Act was received in 1967. The original "four corridor plan" presented in the October 1967 preliminary report was expanded to a five-corridor plan in the May 1968 final report. In separate legislation, the required affirmative vote in the bond election was reduced from two-thirds to 60 percent, and a one-half cent sales tax was authorized as the source for bond redemption. In November 1968, the bond issue proposition failed with an affirmative vote of approximately 45 percent.

The costs of developing the proposal submitted to the voters in 1968 was less than the total federal and state funds provided. The unexpended balance of these funds at June 30, 1972, was approximately \$1.1 million. Following is a summary of receipts and expenditures of which approximately \$3.9 million was expended during 1968 and prior years and approximately \$900,000 in subsequent years. Most of the latter amount was expended in the exclusive busway development project.

#### Receipts

State	\$3,686,000
Federal	2,189,000
Interest earned	<u>47,000</u>
Total receipts	<u>\$5,922,000</u>

#### Expenditures

Staff	\$1,591,000
Consultants and suppliers	3,190,000
Institute for Rapid Transit	20,000
Southern California Association of Governments - modal split model	<u>21,000</u>
Total expenditures	<u>\$4,822,000</u>
Unexpended balance	<u><u>1,100,000</u></u>

In 1969, the district proposed the constuction of an exclusive express busway in one of the corridors of the 1968 proposal. The busway now under construction will provide an 11-mile, high-speed bus rapid transit between downtown Los Angeles and El Monte. Most of the estimated \$60 million costs will be provided from federal interstate funds, state highway funds, parking facility financing under the 1970 federal Highway Act, and federal Urban Mass Transportation funds.

In November 1971, the Governor signed the State Transportation Development Act of 1971 which removed the sales tax exemption on gasoline with most funds designated for mass transit development. Shortly thereafter, the district announced its plan to build the so-called central line from Union Station to the Century Freeway as the first leg of the rapid transit system. This announcement prompted controversy, and the current study described in the following section was implemented to resolve the modal and corridor conflicts.

#### CURRENT STUDY

The current study is a joint effort of the city and county of Los Angeles and SCRTD and is to be financed from a federal Department of Transportation technical study grant to Southern California Association of Governments and local matching funds provided from the residual held by SCRTD of Senate Bill 2, First Extraordinary Session of 1966 funds. The estimated cost of the study is \$600,000. The summary work statement of the technical study of alternative transit corridors and systems calls for a review of all major corridors with the most feasible corridors selected for the greater detail development required for a federal construction grant application.

The work is being performed under the following consulting contracts:

- Project control including work scheduling, project coordination, budget control, progress reporting and work product evaluation
- Planning and engineering including system selection, route and station location, preliminary engineering and construction cost estimates

- Environmental including community criteria, environmental impact and socio-economic impact
- Financing including financing feasibility and resources
- Patronage and revenue including patronage estimates, revenue and expense projections and surface system impact.

The objectives of the study are (1) to create an action program intended to develop a rapid or improved public transit system and (2) to prepare an application for a federal grant to match local funds to implement such improvements. More specifically the objects of the eight-month study are to:

- Study each corridor and define a route within each corridor; review use of existing railroad rights of way to determine if rail commuter operations would be appropriate.
- Identify a vehicle system technology for each route and the needs for feeder services
- Evaluate the corridors and establish a priority for each
- Provide a sound definition of the initial system to be built
- Prepare an implementation plan with staged development.

The study consists of two succeeding phases each to last approximately four months. The first phase to be concluded by January 31, 1973 culminates in the selection of the corridor or corridors for implementing transit improvements. The planning and engineering consultant estimates that a minimum of from five to seven corridors are required to be considered which will be reduced to not more than two for the preliminary engineering work of phase two. Following is the planning and engineering consultant's estimate of the allocation of manhours among the principal tasks of phase one which will represent 40-50 percent of the contract.

<u>Task</u>	<u>Percent</u>
Evaluate transit needs and travel demands	5%
Examine general plans	5
Develop performance and environmental criteria	10
Examine alternative forms of transit service	20
Conduct preliminary system planning	30
Review existing and new technology	15
Select most promising corridors and modes of transit service	<u>15</u>
Total	<u>100%</u>

Following is the planning and engineering consultant's estimate of the allocation of manhours among the principal tasks of phase two which represents 50-60 percent of the contract.

<u>Task</u>	<u>Percent</u>
Conduct more detailed engineering	55%
Develop capital cost estimates	15
Prepare tentative operational plans	2
Develop operating cost plans	5
Select system	13
Refine data	9
Prepare grant application	<u>1</u>
Total	<u>100%</u>

Following are the consulting contracts.

	<u>Amount</u>
- Project control - Peat, Marwick, Michell and Co.	\$111,730
- Planning and engineering - Joint venture of Kaiser Engineers, Division of Kaiser Industries Corporation and Daniel, Mann, Johnson and Mendenhall, a California corporation	240,000
- Patronage and revenue forecast - Alan M. Voorhees and Associates, Inc.	80,000
- Environmental - Joint venture of Wallace, McHarg, Roberts and Todd, and Kennard and Silvers	74,569
- Financing - Stone and Youngberg Municipal Financing Consultants, Inc.	<u>30,000</u>
Total	<u>\$536,299</u>

The Southern California Association of Government's budget for the above work plus \$50,000 for related SCRTD staff work totals \$600,000.

The information accumulated by the district and others in prior planning work is to be used in the current study. This primarily effects the engineering portion of the work. The payments to the consulting engineer for the work on the 1968 plan were 57 percent of total costs, while the current contract with the same joint venture is 47 percent of the total authorization. The environmental consulting contract represents 12 percent of the current authorization. There was no separate environmental consideration in the prior study. Payments to the economic benefit consultant were two percent of the prior study costs while no provision is made for such work in the current study.

The end product of the study which concluded in 1968 was a plan presented to the voters. The end product of the current study is to be a federal capital grant application for allocation of funds authorized by the 1970 Urban Mass Transportation Assistance Act. The fundamental change is the transfer of decisional authority from the local people to the federal Department of Transportation. Los Angeles rapid transit development is in competition with other major cities applying for allocations of the limited federal resources available.

Various proposals before Congress, including the administration's which was included in the 1972 highway appropriations bill, would transfer some or all of the decisional authority to regional areas. Some federal funds would be allocated to urban areas without modal predesignation so that allocations would be made between roads and transit within each urban area.

The current study by establishing the corridor priorities and determining the modal (fixed rail or exclusive busway) advantages will enable Los Angeles to be placed in contention for federal funds. Congressional relaxation of existing modal restriction on federal transportation funds before federal



administrative commitment under the existing transit program would permit development to be controlled locally independent of the road and transit allocations of other urban areas.

#### IMPROVEMENT IN PLANNING

Transportation planning measures present amounts of travel, projects future changes and identifies those improvements which over their useful lives will best serve the travel needs. Transit planning and road planning are conducted separately. Thus, the ongoing Los Angeles Regional Transportation Study has been concerned with forecasting future motor vehicle use. This separation presumes that future transit service and ridership will not materially effect the amount of vehicle usage. In addition, prior planning including the SCRTD study which recommended the 1968 five-corridor, fixed-rail system, used procedures to estimate modal travel demands which are less sensitive to changes in behavior patterns than more recent approaches.

The travelers' modal selection represents a composite of several considerations with the characteristics of the tripmaker, the trip and the attributes of the modes available being the primary controlling factors. The economic condition of the traveler is the most important personal characteristic because this determines the relative values of the time and costs of trips with the more affluent assigning greater significance to time and less to trip costs. As the trip length or amount of repetition increases, the significance of the tripmakers' characteristics increases. The most important factors influencing modal choice are the primary attributes of the mode's performance, cost and travel time. The cost and travel time of a mode compared to these characteristics of another mode determines the relative advantage of each mode for each tripmaker group identified primarily by economic status.

In order for a community with collective personal mobility desires for over 7 million persons to control the socio-economic and environmental consequence of fulfilling all these desires:

- The factors which influence modal selections must be quantified, and
- The method of quantification must permit all of the consequences of governmental actions to be anticipated with a high degree of accuracy.

The patronage and revenue consultant for the current SCRTD study recently completed development of the Los Angeles modal split model for SCAG. The model is based on detail information gathered in 1967 regarding travel patterns. The purpose of the model is to enable predicting the consequences of both systems modifications and various policies which could be implemented to influence modal decisions. Thus, for each type of road and transit improvement, the resulting allocation of the total usage of the two systems for travel between areas and along the corridor can be predicted. In the same manner, the model enables predicting the impact of policies to influence the modal decisions, such as increasing central business district parking fees and developing fringe parking facilities at express transit stops.

The integrity of such predictions is dependent upon:

- The accuracy of the calibration of the factors determined to have influenced the 1967 travel, and
- The absence of any significant shift in emphasis that travelers assign to these factors.

The model cannot calibrate and therefore must ignore the nonpersonal consequence of modal choice, such as environmental impact, spacial requirements and social consequence of each mode. Although the significance of these factors can be measured, they are, like vehicle nonoperating capital outlay, repair, insurance and licensing costs, apparently not significant in personal modal choice. These factors must be evaluated subjectively by the decision makers, the city and county of Los Angeles and SCRTD to develop a consensus for presentation to the federal Department of Transportation.

The following schedule of events will precede the start of major Los Angeles transit construction:

- Local concurrence in the line priority and modal selection after completion of phase one of the current study
- Local concurrence in the federal capital grant application after completion of phase two of the current study
- Federal application approval which may be limited to authorization to proceed with detail design, and
- Federal design approval and authorization to proceed with right of way and, subsequently, construction work.

Neither can the time frame over which these events will occur be accurately predicted nor can it be determined if or when Congress may take action to transfer the decision responsibility to the local community which would eliminate or reduce the significance of the above final two steps.

## RECEIPTS AND EXPENDITURES

A summary of SCRTD receipts and expenditures for the period January 1, 1965 through June 30, 1972, is presented on the following page.

In accordance with requirements of the creating statute, independent audits have been performed for this period. While the auditors did not take exception to the reported receipts and expenditures, they have repeatedly noted that the district is technically in default under the bond indenture because the balances maintained in the Operating Fund and the Depreciation Reserve Funds are insufficient. The audit reports also note that the bond trustee does not intend to proceed under the default provisions of the indenture so long as the position of the bondholders is not jeopardized. The combined deficiency in the two funds as of June 30, 1972 was \$8,853,000.

Southern California Rapid Transit District  
Change in Fund Balance  
January 1, 1965 through June 30, 1972

Balance of Funds January 1, 1965		\$ 20,360,000
Receipt of funds:		
Operations	\$369,678,000	
Sales taxes (1/2 cent, July 1 to December 31, 1970)	30,341,000	
Federal-aid	9,783,000	
State planning funds (including interest earned)	3,733,000	
Local subsidy	<u>130,000</u>	<u>413,665,000</u>
Total funds available		\$434,025,000
Disbursement of funds:		
Operations	\$354,102,000	
Debt service	32,462,000	
Capital outlay	27,038,000	
Rapid transit planning	5,347,000	
Net miscellaneous transactions	<u>25,000</u>	<u>418,974,000</u>
Balance of Funds June 30, 1972		<u>\$ 15,051,000</u>

SOURCE OF FUNDS

Operations

The total funds received from the operation of buses and related items such as advertising, interest earned, sales of equipment and miscellaneous receipts were \$369,678,000 from January 1, 1965 through June 30, 1972. Fare box receipts of \$351,253,000 represent 95 percent of the total receipts.

### Sales Tax Receipts

The district realized \$30,341,000 from the one-half cent sales tax applied for a six-month period ending December 31, 1970. The tax was authorized by Chapter 1567, Statutes of 1969 (AB 2136).

Following is the disposition of these funds.

<u>Purpose</u>	<u>Amount</u>
Operating deficit	\$19,471,000
Debt service on revenue bonds	7,054,000
Capital outlay	2,644,000
Unexpended balance, June 30, 1972	<u>1,172,000</u>
Total	<u>\$30,341,000</u>

### Federal-aid

The following federal grant funds were received.

	<u>Amount</u>
Purchase of equipment and facilities	\$6,406,000
Rapid transit planning	2,189,000
Demonstration projects	969,000
Emergency employment	<u>219,000</u>
Total	<u>\$9,783,000</u>

### State Planning Funds

State money was appropriated to SCRTD from tideland oil revenues, by Senate Bill 2, First Extraordinary Session of 1966, for rapid transit planning. The district realized \$3,686,000 from the appropriation and \$47,000 from interest

earnings on these funds since 1971. From 1967 to 1971 the interest earning in the amount of \$153,000 were paid to the state. In 1971, the district's counsel advised that the interest earnings should be added to the fund rather than paid to the state.

The unexpended balance of these funds was approximately \$1.1 million as of June 30, 1972.

#### Local Subsidy

The \$130,000 of local subsidies provided by the city, county and Community Redevelopment Agency of Los Angeles were for the recently introduced minibus project in the central business district.

#### APPLICATION OF FUNDS

##### Operations

Following is a summary of SCRTD operating expenses for the period January 1, 1965 to June 30, 1972. Because of changes in account classifications comparable figures for 1965 are not available. The 1965 amounts are estimated so that approximate cost could be shown for the entire period since the district began operations.

Southern California Rapid Transit District  
Expenditures for Operations  
January 1, 1965 through June 30, 1972

	Actual Expenditures January 1, 1966 through <u>June 30, 1972</u>	Estimated Expenditures <u>1965</u>	Total Expenditures January 1, 1965 through <u>June 30, 1972</u>
Bus operating costs	\$177,896,000	\$21,021,000	\$198,917,000
Maintenance	55,426,000	7,068,000	62,494,000
Retirement, workmen's compensation and medical	22,453,000	1,731,000	24,184,000
Insurance and safety	21,037,000	1,990,000	23,027,000
Depreciation and amortization	17,431,000	2,787,000	20,218,000
Taxes and licenses	13,751,000	2,103,000	15,854,000
Administration and general	12,900,000	1,476,000	14,376,000
Interest	11,775,000	2,077,000	13,852,000
Advertising	8,489,000	1,045,000	9,534,000
Miscellaneous	<u>7,385,000</u>	<u>502,000</u>	<u>7,887,000</u>
Totals	<u>\$348,543,000</u>	<u>\$41,800,000</u>	<u>\$390,343,000</u>

The district maintains accounting records on both the cash and accrual basis. In accordance with the bond indenture requirements, separate funds are maintained on the cash basis. The statement of Changes in Fund Balance on page 33 is on the cash basis.

The accrual basis is used to more accurately report operating results. The statement of Expenditures for Operations on page 36 is on the accrual basis, with the following major differences from the statement of Changes in Fund Balance.



- The reduction in the value of capital assets is recognized by recording depreciation and amortization.
- Expenditures are accounted in the period that benefit is realized rather than in the period when paid.
- The two components of debt service are segregated with interest costs included in operating expenditures.

#### Debt Service

The district paid \$32,462,000 in principal and interest on bonds and equipment trust certificates. The payments were made from operating revenues except for \$7,054,000 paid from sales tax receipts.

SCRTD assumed both liabilities from its predecessor, the Los Angeles Metropolitan Transit Authority. Revenue bonds in the amount of \$40 million were sold in 1958 to acquire the assets of the two major private operators. The last bonds will mature in 1983. The equipment trust certificates were fully paid in 1971.

#### Capital Outlay

Following is a summary of the capital outlay expenditures for the period January 1, 1965 to June 30, 1972.

<u>Assets Acquired</u>	<u>Amount</u>
Buses	\$23,057,000
Trucks and cars	655,000
Furniture and fixtures	175,000
Shop machinery	186,000
Construction	1,810,000
Communication equipment	219,000
Bus operating properties	293,000
Land	<u>643,000</u>
Total	<u>\$27,038,000</u>


The funds for these acquisitions were provided from the following sources.

<u>Source</u>	<u>Amount</u>
District operations	\$17,988,000
Federal capital grants	6,406,000
Sales tax receipts	<u>2,644,000</u>
Total	<u>\$27,038,000</u>

Rapid Transit Planning

Planning for rapid transit has been paid from operating revenues, federal-aid and state funds provided by legislation in 1966. As of June 30, 1972, approximately \$1.1 million of the state funds were unexpended. Following is a summary of the sources of planning costs.

<u>Source</u>	<u>Amount</u>
District operating revenue	\$ 525,000
Federal planning grant	2,189,000
State planning funds (including interest earnings)	\$3,733,000
Less June 30, 1972 unexpended balance	<u>1,100,000</u> <u>2,633,000</u>
Total	<u>\$5,347,000</u>

  
Walter J. Quinn  
Acting Deputy Auditor General

February 7, 1973

Staff:

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